STUDIES ON THE CHOROID PLEXUS.

By Dr. Henry H. Donaldson.

The studies reported were made by Dr. Meek at the University of Chicago, under the immediate direction of Dr. Hatai. The choroid plexus of the lateral ventricles was examined, and attention directed especially to the epithelium covering the vascular leaf, which constitutes the plexus. This epithelium is continuous with the ependyma. The impulse to the present investigation was given by the incidental observation that in the albino rat before birth, the nuclei of the epithelial cells were located near the apex, whereas in the mature plexus, they were found at the middle or towards the base of the cells. It was determined that this shift in position occurred between the second and seventh day after birth. The general morphology of the choroid plexus varies in the animal scale. The plexus is always much folded, but in some forms is also studded with villous like projections. During growth, there is comparatively little change in the size of the already formed cells, although they generally spread so that each cell at maturity covers about twice the surface which it covers at birth. In the rabbit, large globules of fat are often present in these cells. This fat is extruded from the cell, but the process does not appear to destroy the cell itself. Mr. Meek has corroborated the observations of other investigators, which show that drugs which stimulate secretion, modify the shape and structure of the choroid cells. It is inferred from this, as well as from direct observation on the flow of the cerebro-spinal fluid under the action of drugs, that these cells contribute to the formation of the cerebro-spinal fluid.

Dr. F. X. Dercum asked whether the other ependymal cells have been studied in a similar way.

Dr. Spiller stated that Mr. Hutchison, a fourth year student at the University of Pennsylvania, had made a very interesting study of a case of syringomyelia with hydrocephalus, and in the choroid plexus found vacuoles in the cells like those Dr. Donaldson described as occurring in the rabbit. Within the past week Dr. Spiller had an opportunity to study a very curious tumor. It had the structure of the choroid plexus, and was probably an epithelial growth.

Dr. McCarthy stated that two years ago he reported a very extensive tumor of the choroid plexus of a horse. He has sections from nearly two hundred choroid plexuses and has noticed these changes looking like vaculoes in the cells of the choroid plexus, and changes in the shape of choroid plexuses.

Dr. McCarthy thought Dr. Donaldson's study a very interesting and valuable one He has worked with specimens from persons dying of hydrocephalus, or tuberculosis of the choroid plexus, of which he has reported eight or ten cases already. In his own work he has taken not only the plexus of the lateral ventricles but also the plexus of the fourth ventricle. He has seen no difference in structure between those from the fourth and those from the lateral, especially as concerns the ependyma.

Dr. Spiller said Dr. Donaldson had mentioned the well known fact that the structure of the cells lining the choroid plexus is different from that of the cells lining the walls of the ventricles. In the latter the type is cylindrical. Dr. Spiller had found that in tumors growing from the ependyma, the cells preserve their cylindrical form, whereas in tumors growing from the choroid plexus the cells are more cuboidal.

Dr. Donaldson said he thought the general opinion was that secreting cells are only those which cover the choroid proper. Dr. Donaldson said that the gentlemen had spoken of the work as his, but he wished to emphasize the fact, that it is the work of Dr. Meek, done under Dr. Hatai in Dr. Donaldson's laboratory.

DEVELOPMENT OF THE CORPUS CALLOSUM.

By Dr. G. L. Streeter.

A description of five models reconstructed from human embryos 80, 95 and 150 mm. long, showing the morphology of the corpus callosum, fornix, and anterior callosum. In the youngest stage the corpus callosum and commissure of the fornix form together a round bundle of fibers crossing in the lamina terminalis, dorsal to the fibers of the anterior commissure, as a result of the caudal migration of the fornix commissure, the corpus callosum becomes gradually separated from it and maintains its position so that its center remains dorsal to the anterior commissure. The two originally are nearly equal in bulk, but the fornix commissure early comes to a standstill in growth, while the corpus callosum continues to increase in number of fibers until it reaches the proportion formed in the adult. This transportation occurs in what may be considered as modified lamina terminalis and the so-called fifth ventricle develops as a cavity of the lamina terminalis.

PHILADELPHIA NEUROLOGICAL SOCIETY.

April 23, 1907.

The President, Dr. Alfred Gordon, in the Chair.

A CASE OF STAB WOUND OF THE NECK.

By Drs. John Mulrenan and Cyrus Fridy.

The patient, J. D. L., a boy of 17, was admitted to the Howard Hospital, in the service of Dr. John H. W. Rhein, on December 2, 1906. He came with a history that he had just been stabbed with a stiletto on the left side of his neck. He had been drinking, but was not intoxicated.

Examination revealed the presence of a small stab-wound on the left side of the neck, just above the clavicle, at about the junction of the outer and middle thirds. Shortly after his admission he was seized with a convulsion, which was limited to the left side. The eyes twitched during the entire convulsion, and there was an internal squint of the left eye. The head was drawn to the left. He remained partially unconscious after the convulsion, until the following day when he could be partially aroused.